

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

- {0030}—_____1. (Currently Amended) In a cellular radio network having a plurality of base stations and a mobile switching center, a method for receiving and transmitting signals, the method comprising:
- {0031}—_____receiving a plurality of radio signals at different frequencies using a single radio receiver at said base station;
- {0032}—_____continuously scanning said incoming signals and saving said signals to a buffer with a first processor;
- {0033}—_____reading, processing and time-multiplexing said buffered signals with a second processor;
- {0034}—_____transmitting said time-multiplexed radio signal via a single physical link to a mobile switching center;
- {0035}—_____demultiplexing said time-multiplexed radio signal into independent radio signals corresponding to said incoming signals at said mobile switching center with a third processor;
- {0036}—_____processing said independent radio signals with said third processor; and
- {0037}—_____routing said independent radio signals to the proper end users.
- {0038}—_____2. (Currently Amended) The method defined in claim 1, wherein said cellular radio network comprises a Frequency Division Multiple Access network.
- {0039}—_____3. (Currently Amended) The method defined in claim 1, wherein said cellular radio network comprises a Time Division Multiple Access network.
- {0040}—_____4. (Currently Amended) The method defined in claim 1, wherein said cellular radio network comprises a Global System for Mobile Communications.
- {0041}—_____5. (Currently Amended) The method defined in claim 1, wherein said cellular radio network comprises a Code Division Multiple Access network.
- {0042}—_____6. (Currently Amended) A system for receiving and transmitting cellular radio signals in a cellular radio network, the system comprising:

{0043}—_____a radio receiver at a base station for receiving a plurality of radio signals at different frequencies;

{0044}—_____a first processor for continuously scanning said incoming signals and saving said signals to a buffer;

{0045}—_____a second processor for reading, processing and time-multiplexing said buffered signals;

{0046}—_____means for transmitting said time-multiplexed radio signal via a single physical link to a mobile switching center;

{0047}—_____a third processor for demultiplexing said time-multiplexed radio signal into independent radio signals corresponding to said incoming signals at said mobile switching center and processing said independent radio signals; and

{0048}—_____means for routing said independent radio signals to the proper end users.

{0049}—_____7. (Currently Amended) The system defined in claim 6, wherein said cellular radio network comprises a Frequency Division Multiple Access network.

{0050}—_____8. (Currently Amended) The system defined in claim 6, wherein said cellular radio network comprises a Time Division Multiple Access network.

{0051}—_____9. (Currently Amended) The system defined in claim 6, wherein said cellular radio network comprises a Global System for Mobile Communications network.

{0052}—_____10. (Currently Amended) The system defined in claim 6, wherein said cellular radio network comprises a Code Division Multiple Access network.